UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 03/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _17 November 2003_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under _Ex parte Quayle_, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _19-41_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _19-41_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   As per the Applicant's instructions filed in Paper 7 on 11/17/03, claims 1-18 have been

canceled.

2.   Applicant's arguments with respect to claims 19-41 as filed in Paper 7 on 11/17/03 have

been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 19-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Iizuka (US

Patent: 5,508,743).

Iizuka discloses a method for encoding digital data (Iizuka: column 10,lines 18-28),

comprising : accessing a digital video image (Iizuka: column 4,lines 43-48);; dividing said digital

video image into a plurality of regions (Iizuka: column 4, lines 50-55); numbering said plurality

of regions wherein each of said plurality of regions is assigned a unique consecutive number

(Iizuka: figure 4); selecting a first region of said unique consecutive number wherein each of said

plurality of regions is selected in order of said consecutive number (Iizuka: column 5, lines 30-

40); encoding all except said region of said plurality of regions into encoded regions using

interframe compression (Iizuka: column 6, lines 45-59); and transmitting said regions and said

first regions a video frame (Iizuka: column 6, lines 60-67), as in claim 19..

Regarding claim 20, the Iizuka method discloses that the number is based on a

compression sequence (Iizuka: column 6, lines 1-34), as in the claim.

Regarding claim 21, the Iizuka method discloses dividing said digital video image into

nonoverlapping regions (Iizuka: column 5, lines 15-23), as in the claim.

Regarding claim 22, the Iizuka method, now implemented as computer readable codes on

computer program product as shown by Krishnamurthy, discloses dividing said digital video

image into strips of pixels (Iizuka: figure 2B, elements I-1, I-4), as in the claim.

Regarding claim 23, the Iizuka method discloses dividing said video image into a

plurality of non-contiguous pixel groups (Iizuka: figure 7), as specified.

Regarding claim 24, the Iizuka method discloses encoding each of said plurality of

regions wherein one of said plurality of regions is encoded using interframe encoding (Iizuka:

column 4, lines 60-67), as in the claim.

Regarding claim 25, the Iizuka method discloses selecting a second region of based on

said unique number and encoding all except first and second regions using interframe

compression (Iizuka: figure 7), as in the claim.

Regarding claim 26, the Iizuka method discloses selecting said first region based on a

first unique consecutive number and a second number associated with a transmission (Iizuka:

column 6, lines 55-67), as in the claim.

Iizuka discloses an interframe transmission module (Iizuka: figure 1), comprising : an

input for accessing a digital video image (Iizuka: column 4,lines 43-48); a divider for dividing

said digital video image into a plurality of regions (Iizuka: column 4, lines 50-55) and assigned a

unique consecutive number to each of said plurality of regions (Iizuka: figure 4); a selector for

selecting a first region of said unique consecutive number wherein each of said plurality of

regions is selected in order of said consecutive number (Iizuka: column 5, lines 30-40); an

encoder for encoding all except said region of said plurality of regions into encoded regions

using interframe compression (Iizuka: column 6, lines 45-59); and a transmitter for transmitting

said regions and said first regions a video frame (Iizuka: column 6, lines 60-67), as in claim 27.

Regarding claim 28, Iizuka discloses that the number is based on a compression sequence

(Iizuka: column 6, lines 1-34), as in the claim.

Regarding claim 29, Iizuka discloses dividing said digital video image into

nonoverlapping regions (Iizuka: column 5, lines 15-23), as in the claim.

Regarding claim 30, Iizuka discloses dividing said digital video image into strips of

pixels (Iizuka: figure 2B, elements I-1, I-4), as in the claim.

Regarding claim 31, Iizuka discloses dividing said video image into a plurality of non-

contiguous pixel groups (Iizuka: figure 7), as specified.

Regarding claim 32, Iizuka discloses encoding each of said plurality of regions wherein

one of said plurality of regions is encoded using interframe encoding (Iizuka: column 4, lines 60-

67), as in the claim.

Regarding claim 33, Iizuka discloses selecting a second region of based on said unique

number and encoding all except first and second regions using interframe compression (Iizuka:

figure 7), as in the claim.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   Claims 34-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka (US

Patent 5,508,743) in view of Krishnamurthy et al., (hereinafter referred to as "Krishnamurthy").

Iizuka discloses a method for encoding digital data (Iizuka: column 10,lines 18-28),

comprising : accessing a digital video image (Iizuka: column 4,lines 43-48);; dividing said digital

video image into a plurality of regions (Iizuka: column 4, lines 50-55); numbering said plurality

of regions wherein each of said plurality of regions is assigned a unique consecutive number;

selecting a first region of said unique consecutive number wherein each of said plurality of

regions is selected in order of said consecutive number (Iizuka: column 5, lines 30-40); encoding

all except said region of said plurality of regions into encoded regions using interframe

compression (Iizuka: column 6, lines 45-59); and transmitting said regions and said first regions

a video frame (Iizuka: column 6, lines 60-67), as in claim 34. However, Iizuka fails to disclose

implementing the method as a computer program product comprising computer readable codes

corresponding to the steps of the method. Krishnamurthy discloses a region based refreshing

method for video coding (Krishnamurthy: column 3, lines 3, lines 10-61) that is implemented as

computer readable codes on a computer program product in order to have said method

executable by a general-purpose computer (Krishnamurthy: column 4, lines 5-24). Accordingly,

given this teaching, it would have been obvious for one of ordinary skill in the art to implement

the Iizuka method as computer readable codes on computer program product as shown by

Krishnamurthy in order to have to the Iizuka method executable by a general purpose computer.

The Iizuka method, now implemented as computer readable codes on computer program product

as shown by Krishnamurthy, has all of the features of claim 34.

Regarding claim 35, the Iizuka method, now implemented as computer readable codes on

computer program product as shown by Krishnamurthy, discloses that the number is based on a

compression sequence (Iizuka: column 6, lines 1-34), as in the claim.

Regarding claim 36, the Iizuka method, now implemented as computer readable codes on

computer program product as shown by Krishnamurthy, discloses dividing said digital video

image into nonoverlapping regions (Iizuka: column 5, lines 15-23), as in the claim.

Regarding claim 37, the Iizuka method, now implemented as computer readable codes on

computer program product as shown by Krishnamurthy, discloses dividing said digital video

image into strips of pixels (Iizuka: figure 2B, elements I-1, I-4), as in the claim.

Regarding claim 38, the Iizuka method, now implemented as computer readable codes on

computer program product as shown by Krishnamurthy, discloses dividing said video image into

a plurality of non-contiguous pixel groups (Iizuka: figure 7), as specified.

Regarding claim 39, the Iizuka method, now implemented as computer readable codes on

computer program product as shown by Krishnamurthy, discloses encoding each of said plurality

of regions wherein one of said plurality of regions is encoded using interframe encoding (Iizuka:

column 4, lines 60-67), as in the claim.

Regarding claim 40, the Iizuka method, now implemented as computer readable codes on

computer program product as shown by Krishnamurthy, discloses selecting a second region of

based on said unique number and encoding all except first and second regions using interframe

compression (Iizuka: figure 7), as in the claim.

Regarding claim 41, the Iizuka method, now implemented as computer readable codes on

computer program product as shown by Krishnamurthy, discloses selecting said first region

based on a first unique consecutive number and a second number associated with a transmission

(Iizuka: column 6, lines 55-67), as in the claim.

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

8.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. Iizuka discloses a moving image coding apparatus. Jeong discloses a forced intra-

frame coding method.

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Andy S. Rao whose telephone number is (703)-305-4813. The

examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chris S. Kelley can be reached on (703)-305-4856. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

                                                            Andy S. Rao
                                                            Primary Examiner
                                                            Art Unit 2613

asr
March 11, 2004